

IIIF: A PICTURE PAINTS A THOUSAND WORDS



LAUNCHING IIIF WITH LUNA AT THE UNIVERSITY OF EDINBURGH
SCOTT RENTON MARCH 2017

I-I-I-F A Picture Paints A Thousand Words (Then Why Can't I Paint You). Anyone know who that was a hit for in the 70s? This guy: a terrible pun, and yet somehow appropriate. It was either that or Kipling, and I thought this was more positive, although now I think about it, "IIF: You Can Keep Your Head About You When All About Are Losing Theirs" is actually quite a good adage for the sense and resultant serenity derived from using it. You can have that for free...

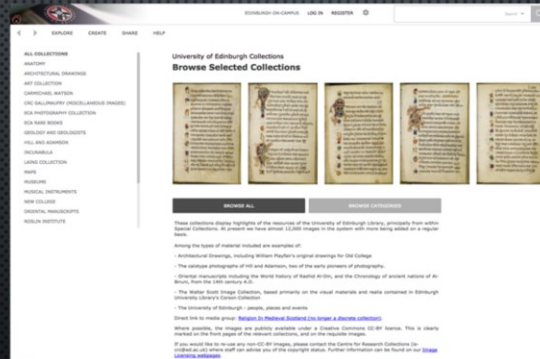
UNIVERSITY OF EDINBURGH: LUNA



<http://lunaimaging.com>

So, I'm just going to give a quick overview of what we're up to in Edinburgh with IIF. First things first, our imaging platform is LUNA. This was a huge investment about a decade ago, and we continue to justify the annual support fee with liberal use of the resource. It's certainly not Open Source, we couldn't recommend it to be people as a IIF server as it costs a fortune but- if you already have it, or have a lot of money to burn- it can still be used to support open work.

UNIVERSITY OF EDINBURGH: LUNA

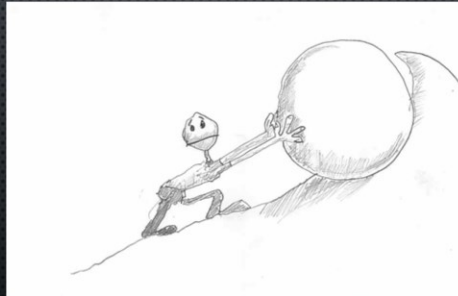


<http://images.is.ed.ac.uk>

<http://images-teaching.is.ed.ac.uk/luna/servlet>

Our implementation of LUNA can be found here, at images.is.ed.ac.uk. We've got about 30,000 images publicly available, and a great deal more on our collaborative projects and teaching collections site (which aren't in general ours, so our focus is usually on the former).

ANOTHER SYSTEM?



We'd become aware of IIF at various things- my first brush with it was an email to Matt, who explained that the Bodleian were now off LUNA, and were doing amazing new things for their online resources, and that this mysterious framework was key to making that happen. More conferences (MCG, Europeana Tech) followed, and it became absolutely clear that this was how the community's wind was blowing- functionality existed for images which we couldn't consider with our current setup.

Myself and Claire found out a lot more at the user group meeting in Gent in December 15, by which time we had pretty much resolved to 'get with the programme', and start using it. With no initial LUNA capability, we had our first go at seeing how it might look by using the Digilib server for presentations, and using DZIs to test OpenSeadragon, and, while this wasn't a sustainable model, we were impressed at how much nicer the Seadragon zoom was than LUNA's, and how nice it might look to embed zooming directly into our collections website, which needs an additional link to LUNA to expose the high-res version. I had my reservations though, as I think anyone who's spent a long time developing something does: we'd invested a lot in LUNA and the systems around it; I'd personally done a big upgrade and content migration and our photographers (Susan) were finally happy with the image management options available to us. Were we now going to abandon all of that to

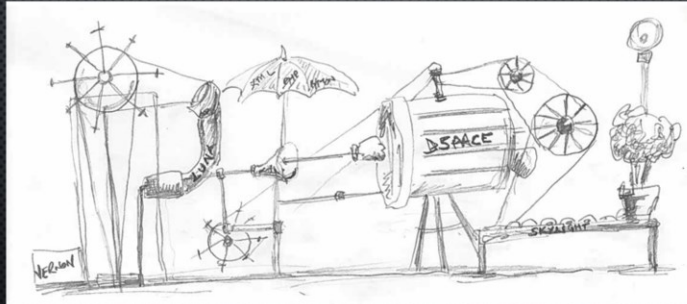
start using IIPServer or Loris? Would we need to build homemade applications to allow our photographers to manage their images that would interact with this? Like Sisyphus, was I going to roll my ball to the top of the hill only to see me back at the bottom again? The lazy person in me was horrified, but I also knew that it was important that we got ourselves on-board with IIF and everything we could do with it.

COULD LUNA DO IIIF?



Could LUNA do IIIF though? As alluded to, I talk a lot with Drake at LUNA, and obviously "what are you doing about IIIF?" was a question that I had to ask. Anyone who's ever tried to leave Sky or Virgin knows that the threat of taking your business elsewhere can be quite effective, but The framework was not in any way news to him, which was great, and he didn't sound unduly concerned, as it sounded like they were on the case. We felt quite proud of ourselves, forcing this big corporate to change their culture for our benefit! However...I'm not sure if you're familiar with the tale of The Gruffalo, where predators run off in apparent terror of a cocksure mouse, because they've actually seen the hulking brute behind them. It turned out (according to Robert Sanderson) that the customer that was really pushing LUNA to use IIIF was the David Rumsey collections at Stanford, who are basically LUNA's biggest customer and the reason for their existence. Cocksure mice we may have been, but the main thing was it was happening. Such was their progress that on the day of the Gent conference, Tom Cramer was able to add the LUNA logo to the list of servers, in his presentation, much to our, and I suspect LUNA's relief.

WORKFLOW



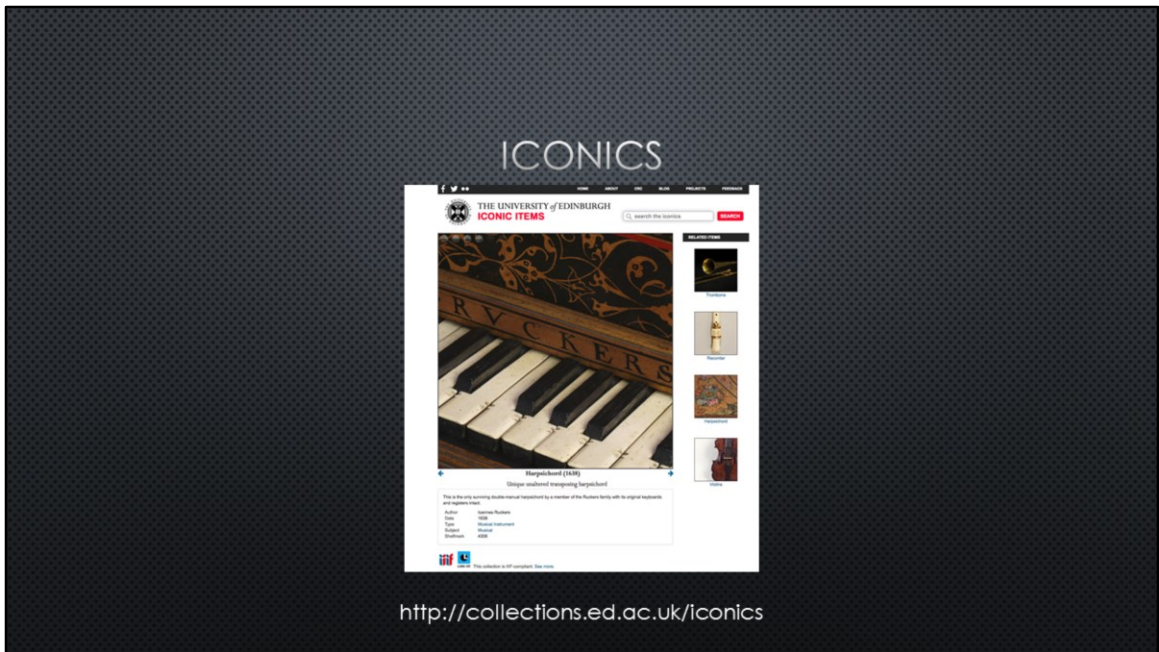
So, where have we got to? Our workflows are largely unaffected- images that are primarily discovered in LUNA just become automatically IIIF, so that was done as soon as we upgraded. For our object-driven collections sites, the workflow is complex- a diagram would be as informative as this- but other than the work involved in clearing the backlog, turning these sites IIIF and introducing viewers and removing links to LUNA, it's slightly more streamlined as a result. We have a lot of systems to satisfy, but we will no longer have to feed them physically with jpegs, the sites themselves can get to the high-res without having an additional link through to LUNA , and best of all, being able to hide the LUNA collection so we don't have to worry about keeping metadata in sync across various systems.

LUNA NOT YET PERFECT



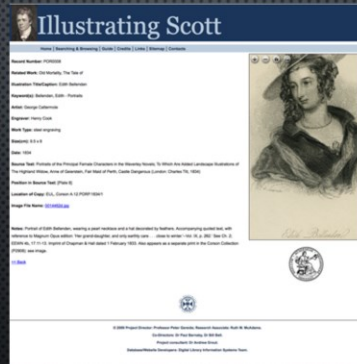
I think as far as LUNA customers go, we're at the vanguard of IIIF use. It's been an option in the application for a little while, and we've noticed and pushed back issues as we've spotted them (not taking the upgrade till it was compliant). Currently, there is still a small outstanding list of things that LUNA cannot do that we would like:-

- Scaling. LUNA is not currently rendering items correctly- it only renders at a size of 1536pixels, so if we request an image with smaller dimensions, it is correctly smaller in terms of bandwidth, but it is horribly jagged. The expected behaviour is to render 5 times in total, and we get the closest (bigger) to our request, so the scaling is more or less invisible. This is in development.
- Mirroring. LUNA currently provides support for rotation, resizing and cropping through a IIIF URL, but mirroring (at least up to 7.2.5) is not available. 7.2.6 has just come out, so perhaps that is on its way.
- Mirador. Currently, shareable LUNA manifests are only available as collections, and thus cannot be imported into Mirador (which expects type of manifest). This is correct, but Mirador probably needs to take this into account-That said, where we have a full book text, or many images of an item, we would want a type manifest passed out. We are looking at ways of generating our own, but appreciate that LUNA could be doing this (perhaps, at least through Book Reader functionality).



Anyway, we are now using, generally, a pure LUNA->IIIF->OpenSeadragon workflow (although we do also use Leaflet, of which more to follow). We have three sites which are now in a state of 'liveness' which operate in this way. Iconics- this shows 50 items which are key to Library and University Collections. We've not gone completely IIIF here- these thumbnails were carefully cropped to look a certain way when the site went live and we haven't quite had the nerve to replace them yet (this is possibly one of the things we could better manipulate in IIIF- how can you programmatically guess whether blanket cropping to the same area will produce something nice? It's really full picture or a shot in the dark). Anyway, the OpenSeadragon works quite nicely here- we used a defaultZoomLevel to ensure no white space on entry. We've also got drag and drop working here.

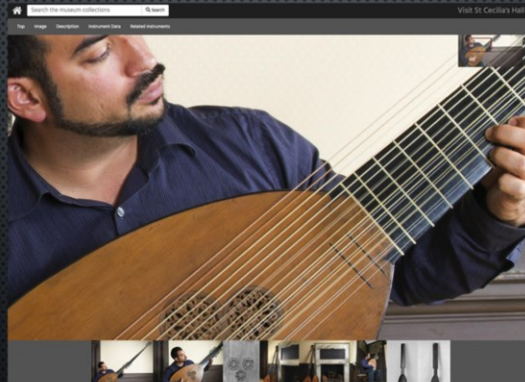
ILLUSTRATING SCOTT



<http://illustratingscott.lib.ed.ac.uk>

Illustrating Scott- this was a really good example of how quickly we could go IIIF. All of the items in here had a LUNA link in them already, so a reparse of the URL allowed the thumbnail (badly scaled- should be full/full and set in styling until LUNA fix) and OpenSeadragon viewer to be thrown in quickly. Drag and drop etc still has to be added to this site. My colleague that looks after this site asked me how to do it- I gave him the info with the caveat that if he got it live before our stuff, he'd be IRRITATING SCOTT. He did it anyway.

ST CECILIA'S HALL



St Cecilia's- big project for us, to do with the opening of the redeveloped St Cecilia's Museum and Concert Hall along the road. It's got a nice use of IIIF with full screen, responsive zoomable viewing, and we've looked at bringing in our own buttons and panning options (we've also thrown in the navigator). We can also swap images in and out of OpenSeadragon. Quite a lot of heavy lifting here to get the 700 constituent images to be IIIF all the way, but we have a workflow in place. We are concerned about how this will perform, though, on an in-museum iPad- until LUNA fix it's bad thumbnails or bad performance.

GETTING THERE....



A lot done, and a lot to do. Our selfish use of IIIF should see all collections sites, Archives Space, metadata games, scrolls etc. much improved due to the framework. Could we hide the (much improved) LUNA interface to move collections to one standard frontend style? I don't know if we'd want to- a lot of material needs nowhere other than LUNA to be catalogued, so it's probably overkill, but we could actually build up a Solr index or manifest with nothing but LUNA urls which our collections site could interrogate, and code the rest, as LUNA very kindly put all the metadata out in their info.json. It's an interesting idea.

COLLABORATIVE COLLECTIONS



That's the kind of workaday use of IIIF for improved image discovery and streamlined processes. We're interested in the more powerful, collaborative things that IIIF can do though. In addition, we do have local instances of Mirador and Universal Viewer running, and intend to use them a lot more for viewing items: we currently have a project of Scottish Session Papers, where there are multiple institutions involved, and another called Coimbra which is even more diverse. We will probably go down the road of hosting images which we've taken custody of (for non-IIIF institutions) but don't own on IIIFServer or suchlike. We're looking forward to being well-placed to work collaboratively with our IIIF images and today's a good starting point for that. We would expect to be doing things with the NLS, but our images are out there, so if anyone is interested in working with us, it would be great to hear from you.

TRANSLATION AND TRANSCRIPTION



And finally, Translation and Transcription. We've been lucky enough to have the amazing Erin Nolan working on this, but I won't say any more as she's up next, but rest assured, she came up with something genuinely innovative.

LINKS

- [HTTP://LUNAIMAGING.COM](http://lunaimaging.com) (LUNA's SITE)
- [HTTP://IMAGES.IS.ED.AC.UK](http://images.is.ed.ac.uk) (UOE IMAGING PLATFORM)
- [HTTP://COLLECTIONS.ED.AC.UK](http://collections.ed.ac.uk) (UOE COLLECTIONS SITE)
- [HTTP://IMAGES-TEACHING.IS.ED.AC.UK/LUNA/SERVLET](http://images-teaching.is.ed.ac.uk/luna/servlet) (SECONDARY UOE IMAGING PLATFORM)

- SCOTT.RENTON@ED.AC.UK
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